

REMARKS

Claims 1-36 are pending in the application. Claims 1-6, 8-15, 17-24 and 26-36 are rejected and claims 7, 16 and 25 are objected to for being dependent on a rejected base claim but would be allowable if rewritten into independent form. The claim rejections are made final.

Prior Office Action

The Office Action does not mention some grounds of rejection that were raised in a prior office action to reject claims 19-27 under 35 U.S.C. § 101 and to reject claims 1-27 under 35 U.S.C. § 112, second paragraph. One prior ground of rejection based on Araki, US 6,456,963 is mentioned in the Office Action and has been withdrawn.

The Applicants assume the prior grounds of rejection that are not mentioned in the Office Action have been overcome by their prior response and, therefore, confine their remarks in this response to only those grounds of rejection that are set forth in the most recent Office Action.

Present Office Action

The most recent Office Action indicates that new claims 28, 30, 31, 33, 34 and 36 are rejected under 35 U.S.C. § 112, first paragraph, that claims 1-6, 8-15, 17-24, 26-30, 33 and 36 are rejected under 35 U.S.C. § 102(e), and that claims 29, 32 and 35 are rejected under 35 U.S.C. § 103.

Telephone Interviews

Examiner Jialong He and the undersigned attorney held a telephone interview on June 18, 2010 (the "First Interview"). An agreement was reached during the First Interview that claims 28, 31 and 34 are supported by the specification and the rejection under § 112, first paragraph, will be withdrawn. No other agreement was reached.

Examiner He, Supervisory Examiner Richemond Dorvil and the undersigned attorney held a telephone interview on June 24, 2010 (the "Second Interview"). An agreement was reached that Youn does not disclose or render obvious all features of claim 1. The rejection of claim 1 under § 102(e) will be withdrawn and prosecution will be reopened.

The following paragraphs summarize items that were discussed in the interviews.

Claim Rejections Under Section 112

Claims 28, 30, 31, 33, 34 and 36 are rejected under 35 U.S.C. § 112, first paragraph. The Office Action indicates the features recited in these claims are not disclosed in the specification.

Claims 28, 31 and 34

Claims 28, 31 and 34 recite a “measure of processing performance that is higher than the threshold.” The Applicants submit that this feature is disclosed in the specification and it is recited in the originally-filed claims.

Referring to step (c) of claims 1 and 19, and to the means for analyzing in claim 10, each of these base claims recites a “measure of processing performance ... higher than a threshold.” The dependent claims 28, 31 and 34 merely refer to what is recited in these originally-filed claims.

Furthermore, the claimed feature is supported by the specification. Referring to text in paragraph [0024] of the published U.S. application (US 2008/0133246 A1), the specification states:

“... The optimization to be performed is to optimize the grouping of blocks within a frame given one or more constraints. These constraints may vary from one application to another and may be expressed as a maximization of excellence in signal processing results such as encoded signal fidelity or they may be expressed as a minimization of an inverse processing result such as encoded signal distortion. ... Measures of signal distortion are discussed below but these are merely examples of a wide variety of quality measures that may be used. The techniques discussed below may be used with measures of signal processing excellence such as encoded signal fidelity, for example, by reversing comparisons and inverting references to relative amounts such as high and low or maxima and minima.” (emphasis added)

The section of the description that is cited in the Office Action discusses a “sum of distortions.” As explained in the specification, distortion is an inverse to the claimed measure of processing performance or “excellence in results obtainable by processing.” The comparison with respect to the threshold is to be reversed from what is discussed in the cited text.

As noted above, an agreement was reached that claims 28, 31 and 34 are supported by the specification and the rejection of these claims under § 112, first paragraph, will be withdrawn.

Claims 30, 33 and 36

Claims 30, 33 and 36 recite “the measure of processing performance is responsive to a total number of bits available to represent a respective frame of blocks.” During the Second Interview, Examiner He indicated he had not found support in the specification for the claimed feature. The undersigned attorney indicated there is support but did not locate the appropriate text at that time.

Step (c) of claim 1 indicates the recited “measure of processing performance” is obtained at least in part from the measure of quality associated with a group of blocks. Paragraphs [0039] and [0040] of the published U.S. application describe considerations for what types of measures of quality are suitable for providing a “single representative value or composite measure for all blocks

in the group” that can be used to direct the optimization process. This single value or composite measure refers to the “measure of processing performance” that is recited in step (c) of claim 1 and in claims 30, 33 and 36. As may be seen from the disclosure, factors that affect the measures of quality also affect the resulting “measure of processing performance” that is obtained from them. As a result, the “measure of processing performance” would be responsive to such factors.

Referring to paragraph [0024] of the published U.S. application, the specification states:

“... These constraints [of optimization] may vary from one application to another and may be expressed as a maximization of excellence in signal processing results such as encoded signal fidelity or they may be expressed as a minimization of an inverse processing result such as encoded signal distortion. For example, an audio coder may have a constraint that requires minimizing distortion for a given data rate of the encoded signal or that requires trading off the encoded signal data rate against the level of encoded signal distortion, whereas an analysis / detection / classification system may have a constraint that requires trading off accuracy of the analysis, detection or classification against computational complexity.” (emphasis added)

This text indicates “signal fidelity” and its inverse “signal distortion” are two examples of measures that express “excellence in signal processing results.” Each is an example of the “measure of quality” recited in step (c) of claim 1 from which the “measure of processing results” is obtained.

Referring to paragraph [0022], the specification states:

“Various aspects of the present invention may be implemented in an audio encoder by optimizing the number of groups and the group boundaries between groups of blocks to minimize encoded signal distortion. A tradeoff may be made between the degree of minimization and either or both of the total number of bits used to represent a frame of an encoded signal and the computational complexity of the technique used to optimize the group arrangements. In one implementation, this is accomplished by minimizing a measure of mean square error energy.”

The example in this text indicates that the minimization of “signal distortion” may be traded off against the total number of bits used to represent a frame of an encoded signal. This relationship is also inherent in the nature of digital signal encoding; if more bits are available, the digital signal can be encoded more accurately, with higher fidelity or, in other words, with less distortion.

The cited text discloses a clear linkage between total bits available to represent a frame of blocks and the claimed “measure of processing performance.” Claims 30, 33 and 36 recite this linkage by saying the measure is responsive to the total number of bits.

Claim Rejections Under Sections 102, 103

Claims 1-6, 8-15, 17-24, 26-30, 33 and 36 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent 7,283,968 (referred to as “Youn”). Claims 29, 32 and 35 are rejected under 35 U.S.C. § 103 as being unpatentable over Youn in view of U.S. patent 6,424,939.

The Applicants respectfully traverse the rejections for reasons that were presented in the Applicants’ response to a prior office action.

During the Second Interview, Examiner He mentioned that the optimizing nature of the invention described in the present application does distinguish it over what is taught in Youn, that this distinction accounts for claims 7, 16 and 25 being allowable if rewritten into independent form, and that claim 1 might be allowable if it were amended to recite features of this optimization. The undersigned attorney argued that step (c) in its present form does recite features of optimization. An agreement was reached that Youn does not teach or render obvious the features recited in step (c).

Other Claims

This distinction for claim 1 applies also to independent claims 10 and 19. The dependent claims were not discussed during the Second Interview. The Applicants maintain their arguments for these claims as expressed in their response to the prior office action. No agreement was reached with respect to those arguments but an agreement was reached that the rejection of these claims would be withdrawn.

CONCLUSION

In view of agreements that were reached during the First and Second Interviews, the rejection of claims 1-29, 31-32 and 34-35 is withdrawn and prosecution will be reopened. The Applicants respectfully request that claims 30, 33 and 36 be reconsidered.

Respectfully submitted,



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